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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/595,133 | 06/16/2000 | Denis L. Babin | 00,474 | 1328 |

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EXAMINER

HAMILTON, ISAAC N

ART UNIT PAPER NUMBER

3724

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 09/595,133 | | BABIN, DENIS L. | |
| | Examiner | | Art Unit | |
| | Isaac N Hamilton | | 3724 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 21-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 21-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-14 and 21-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benenati (5,227,179). Benenati discloses manufacturing a plurality of manifold parts M in column 6, lines 16-18; heating elements 17; milled grooves 8; flow channels 9; inventory of partially manufactured manifold plate parts in column 2, lines 26-30; customized specifications in column 6, lines 18-21; boring out holes 22 in column 7, lines 24-30; nozzles 2; plugs 20; bored out slots for alignment pins 25B are implied in figure 3; aligning plug channels with flow channels of the manifold plate and melt channels of the nozzles shown in the assembly of figures 8 and 9; manifold lengths in column 6, lines 18-21; milling, grinding, drilling, boring, inserting and attaching are all implied actions in a manufacturing process; first phase in figure 2a; second phase in figure in figure 2; H-shape in figures 2 and 2A. Benenati discloses the claimed invention except for a unitary manifold plate. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a unitary manifold plate, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893). It would have been obvious to provide a unitary manifold plate in Benenati as taught by *Howard v. Detroit Stove Works* in order to reduce assembly costs. The position that

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integrating several manifold parts into a unitary manifold plate is further supported by *In re Larson*, which states “that the use of a one piece construction instead of the structure disclosed in [the prior art] would be merely a matter of obvious engineering choice.” See MPEP 2144.04(V)(B).

Response to 37 CFR 1.132 Declaration

3. In the declaration, Mr. Bennett asserts that none of the main competitors in the hot runner industry have manufactured or sold any hot runner systems that are disclosed by Benenati. However, it is believed that all of the hot runners in the various brochures provided are an obvious equivalent to the hot runner system in Benenati. Applicant asserts that MML’s main competitors have implemented methods for fast-manufacturing hot runner systems of the instant application. After review of the brochures provided, it appears that the designs by MML’s competitors are quite different from the instant application, moreover, there are no details given in the brochures about the method of manufacturing of the hot runner systems. It is possible that although the methods and systems in the brochures may look similar to the applicant, they are quite different from the instant application; however, the brochures do not offer enough detail to justify applicant’s assertions.

Response to Arguments

4. Applicant's arguments filed 01/10/05 have been fully considered but they are not persuasive. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the

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time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In this case, making Benenati's manifold into a unitary manifold plate is not hindsight because it is an obvious engineering design choice to make an apparatus with two parts into one integral part as stated above in *In re Larson*. It is obvious to manufacture unitary manifold plates as taught by *Howard v. Detroit Stove Works* in order to reduce assembly costs. Benenati is capable of avoiding many of the costs associated with the hot runner system if the manifold plate is unitary because each manifold part M in Benenati must be attached, which demands more workers to fabricate the hot runner system. Applicant asserts that manifold plates have the substantially the same shape throughout manufacturing. It is believed that none of the manifold parts M in Benenati are substantially changed though the method of making a hot runner system in Benenati. All of the parts M are substantially rectangular before and after the manifold plate is manufactured. Applicant asserts that Benenati does not disclose a common melt inlet in communication and perpendicular to one or more flow channels. It is believed that Benenati discloses the flow channels 9 receive plastic resin from bores 9d in figures 8 and 9, wherein, plastic resin is flowing into the manifold plates via the element 27. Applicant asserts that the instant application fills a need in the art. It is believed that Benenati is already fulfilling that need by providing an integral manifold plate system. Applicant asserts that Mold-Masters Limited has experienced commercial success with the technology in the instant application. It is believed that the success that Mold-Masters Limited has experienced is due to normal trends that occur when a company offers a product it hasn't offered before. Moreover, no data trends have been provided showing that Mold-Masters Limited's MIM Speed has been more successful in a

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commercial space than its competitors over a given period of time. Merely showing that other companies are offering products that share some of the same qualities as the instant application is not sufficient for showing commercial success.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac Hamilton whose telephone number is 571-272-4509. The examiner can normally be reached on Monday through Friday between 8am and 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on 571-272-4514. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IAH

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April 4, 2005

AS

Allan N. Shoap
Supervisory Patent Examiner
Group 3700